

Application No.: 09/667,666 MAT-8032US
Amendment Dated: October 12, 2004
Reply to Office Action of: July 26, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An audio transmitting apparatus comprising:

data reproducer for outputting digital audio data and control information for the digital audio data;

data transmitting means identifier adder for identifying a coding type of the digital audio data, and for sending out digital audio data and adding identification information showing at the identified coding type efon the digital audio data, and for sending out the identification information added on the digital audio data; and

controller for controlling an output of the digital audio data issued from the data reproducer,

wherein when the identification information changes from identification information A showing a first coding type to identification information B showing a second coding type,

(a) the controller stops the output of the digital audio data issued from the data reproducer for a specified time,

(b) the identifier adder

(i) generates silent identification information C indicating substantially zero data during the specified time, and

(ii) performs at least one of adding the identification information A on the silent identification information C in a first half of the specified time and adding the identification information B on the silent identification information C in a second half of the specified time,

and outputs the silent identification information C.said data transmitting means makes the digital audio data be substantially zero data

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~~and adds silent identification information C on the substantially zero data, and issues the substantially zero data for a specified time, when the identification information changes from an identification information A showing a first coding type to a second identification information B showing a second coding type.~~

2. (Original) The audio transmitting apparatus of claim 1, wherein said identification information A shows linear PCM mode, and said identification information B shows nonlinear PCM mode.

3. (Original) The audio transmitting apparatus of claim 1, wherein the specified time of transition of said identification information from said identification information A to said identification information B ranges from 3 msec to hundreds of msec.

4. (Currently Amended) The audio transmitting apparatus of claim 1, wherein the digital audio data of a coding type shown by said identification information A fades out immediately before transition.

5. (Currently Amended) The audio transmitting apparatus of claim 1, wherein the digital audio data of a coding type shown by said identification information B fades in for a specified time after transition.

6. (Currently Amended) The audio transmitting apparatus of any one of claims 1 to 5, wherein the transmission route for sending out data issued from the identifier adder is IEEE1394.

7. (Currently Amended) The audio transmitting apparatus of any one of claims 1 to 5, wherein the transmission route for sending out data issued from the identifier adder is IEEE1394, and said silent identification information C is ancillary data specified in Audio and Music Data Transmission Protocol of the IEEE1394.

8. (Original) The audio transmitting apparatus of any one of claims 1 to 5, wherein the transmission route for sending out data is IEEE1394, and said silent identification information C has a specified data region, and said data region is "0" in a specified bit row at the MSB side.

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9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) The audio transmitting apparatus of any one of claims 14 to 161, wherein one of said identification information A or identification information B shows non-encode mode, and others show encode mode.

18. (Currently Amended) The audio transmitting apparatus of claim 14 or 161, wherein said T1 is 3 msec or more.

19. (Currently Amended) The audio transmitting apparatus of claim 15 or 161, wherein said T2 is 3 msec or more.

20. (Cancelled)

21. (Cancelled)

22. (Currently Amended) The audio transmitting apparatus of any one of claims 14 to 161, wherein when said silent identification information C is said silent identification information C, sequentially different data are stored in a specified data region following said silent identification information C includes a specified data region and includes the identification information A and the identification information B at an MSB side of the data specified region.

23. (Currently Amended) The audio transmitting apparatus of any one of claims 14 to 1622, wherein when said identification information is said silent identification information C, sequentially different data are stored in a specified bit

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~~row at the an LSB side in the specified data region following said silent identification information C.~~

24. (Currently Amended) The audio transmitting apparatus of ~~any one of claims 14 to 16~~²², wherein ~~when said identification information is said silent identification information C,~~ pseudo-random number data are stored in ~~at an LSB side in the~~ specified data region following said silent identification information C.

25. (Cancelled)

26. (Original) An audio receiving apparatus comprising identification information distinguishing means for distinguishing the identification information showing the type of the data received through a transmission route,

wherein digital audio data is issued directly in the case of identification information showing non-encode mode, depending on the output of said identification information distinguishing means, or issued by way of data decoding means in the case of identification information showing encode mode, and

when said identification information distinguishing means distinguishes silent identification information C,

the output is immediately muted nearly to zero in the case of identification information showing the identification information before the silent identification information C is non-encode mode, or

the output is muted nearly to zero after termination of processing of the data in process by said data decoding means in the case of identification information showing the identification information before the silent identification information C is encode mode.

27. (Original) An audio receiving apparatus comprising identification information distinguishing means for distinguishing the identification information showing the type of the data received through a transmission route,

wherein digital audio data is issued directly in the case of identification information showing non-encode mode, depending on the output of said

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identification information distinguishing means, or issued by way of data decoding means in the case of identification information showing encode mode, and

when said identifier distinguishing means distinguishes silent identification information C,

the output is immediately muted nearly to zero in the case of identification information showing the identification information before the silent identification information C is non-encode mode, or

the output is muted nearly to zero after termination of processing of the data in process by said data decoding means in the case of identification information showing the identification information before the silent identification information C is encode mode,

thereby changing to the setting for data output depending on the identification information accompanying said silent identification information C in the midst of muting by said silent identification information C.

28. (Original) The audio receiving apparatus of claim 26 or 27, wherein the transmission route for receiving data is IEEE1394.

29. (Original) The audio receiving apparatus of claim 26 or 27, wherein the transmission route for receiving data is IEEE1394, and said silent identification information C is ancillary data specified in Audio and Music Data Transmission Protocol of the IEEE1394.

30. (Currently Amended) The audio receiving apparatus according to ~~any one of claims 1, 9, 14, 15 and 16~~,

wherein the identification information A and the identification information B further including information showing at least one of a number of channels, a data length, a sampling frequency, channel allocation information, dynamic range control information, a down-mix coefficient, an emphasis flag, copy control information and an internal standard recording code (ISRC) of the digital audio data.

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31. (Currently Amended) An audio transmitting apparatus comprising:

data reproducer for outputting digital audio data and control information for the digital audio data;

identifier adder for identifying at least one of a coding type, a number of channels, and a sampling frequency of the digital audio data, and data transmitting means for sending out digital audio data and adding identification information showing at least one of the coding type, the number of channels, and the sampling frequency on the digital audio data in a transmission route, the identification information added on the digital audio data in a transmission route, the identification information added on the digital audio data, and for sending out the identification information added on the digital audio data; and

controller for controlling an output of the digital audio data issued from the data reproducing means,

wherein when said at least one of the coding type, the number of channels, and the sampling frequency shown by identification information A changes to said at least one of the coding type, the number of channels shown by identification information B which is different information than the information shown by the identification information A, said data transmitting means adds a silent identification information C and the identification information A and issues the silent identification information C and the identification information A added on the digital audio data for a specified time T1

(a) the controller stops the output of the digital audio data issued from the data reproducer for a specified time,

(b) the identifier adder,

(i) generates silent identification information C indicating substantially zero data during the specified time, and

(ii) performs at least one of adding the identification information A on the silent identification information C in a first half of the specified time

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and adding the identification information B on the silent identification information C in a second half of the specified time,

and outputs the silent identification information C.

32. (Cancelled)

33. (Cancelled)